FOREIGN AGRICULTURE

JANUARY 22, 1973

The Japanese Market for U.S. Fruits and Vegetables

New Soviet Farm Goals

FOREIGN AGRICULTURAL SERVICE

U.S. DEPARTMENT OF AGRICULTURE

FOREIGN AGRICULTURE

VOL. XI • No. 4 • January 22, 1973

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Production of corn in Portugal is not keeping pace with domestic demand, as livestock output and meat needs climb. In this decade, Portugal's corn area is likely to continue shrinking, and production is not expected to surpass 700,000 tons. Farmers prefer local varieties which grow taller than hybrids and require less mechanization and lower fertilization. For article on mounting feed needs, see page 10.

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Use of funds for printing *Foreign Agriculture* has been approved by the Director of the Bureau of the Budget (May 1, 1969). Yearly subscription rate, $20.00 domestic, $25.00 foreign; single copies 45 cents. Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

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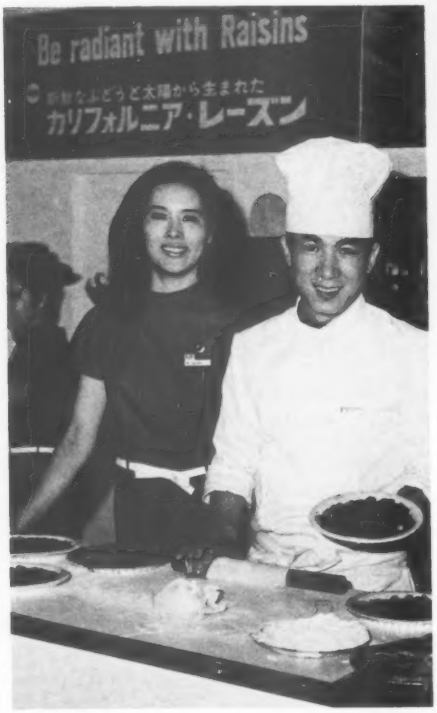
Melons, above, get prominent display in a Japanese wholesale market.



Melons with intact "T" stems, above, fetch as much as $2.77 each in Japan. Left, a promotion of U.S. raisins, a popular product in Japan.

Japan Is Growing Market For U.S. Fruits and Vegetables

By A. CLINTON COOK
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GRADUAL LIBERALIZATION of Japanese trade and rapidly growing demand have made Japan the world's second largest importer of U.S. fruits and vegetables and paved the way for more gains in the years ahead.

Now exceeded only by Canada as a U.S. fruit and vegetable market, Japan has thus far been strongest as an importer of lemons, grapefruit, almonds, and raisins—products which have been aided by relaxed trade restrictions and aggressive market development efforts on the part of the Foreign Agricultural Services (FAS) and cooperating industry groups. Further large gains can be expected in these well-established items, but a number of others, particularly citrus, can also be expected to rise in coming years, provided that the scope of liberalization is expanded. The outlook for various products follows.

Citrus. Japanese imports of fresh lemons, lemon juice, and fresh grapefruit are not subject to quantitative import restrictions, and purchases from the United States have already attained relatively high levels. Other citrus exports may be helped by current efforts of FAS and the U.S. citrus industry to gain liberalization of bulk frozen concentrated orange and grapefruit juices and seasonal liberalization of fresh oranges; full liberalization of the latter is to be sought eventually. If the first goal can be attained, there should be a market in Japan for $150 million of citrus, compared with the $38-million level for U.S. fiscal 1972.

Japanese imports of fresh lemons were liberalized in 1964, and FAS has had a cooperative market promotion program with the California Arizona Citrus League since that time. Benefits from these developments have been great, with U.S. lemon sales in Japan consistently gaining by 20-25 percent a year, for a fiscal 1972 total of about $17 million. There is still room for growth, and sales hold the potential of rising to between 5 million and 5.5 million cartons, valued at $20 million-$25 million.

Japan liberalized fresh grapefruit on July 1, 1971, by removing the quotas on volume imported. At the same time, however, it replaced the import duty of 20 percent of the c.i.f. value with a seasonal duty (Dec. 1 to May 31) of 40 percent. Despite this very high duty, U.S. grapefruit exports to Japan shot to $18 million in fiscal 1972 from $1 million the year before. The industry sales target for fiscal 1973 is 8 million to 9 million cartons, valued at about $30 million. A further rise to around $50 million can probably be achieved in the near future.

TO CAPITALIZE ON the marketing portunities opening up in Japan, FAS in September 1971 initiated a market development program for U.S. grapefruit. As part of the program, U.S. exporters promote their own brands of grapefruit in the Japanese market, and the Florida Citrus Commission promotes Florida grapefruit in general.

Japanese imports of fresh oranges have the same high duty as grapefruit, as well as a global quota. The quota for Japanese fiscal 1973 is 12,000 metric tons, with California and Arizona to be the principal suppliers. Some exporters believe that full liberalization of this market could lead to U.S. sales of up to $100 million, and some Japanese trading companies estimate the potential at twice that amount. With seasonal liberalization, a $50-million estimate would be conservative.

Both U.S. and Japanese traders are also convinced there is a very large potential market for U.S. citrus juices

in Japan. Currently, there is a global quota for only 500 metric tons of 5 to 1 concentrate of orange and grapefruit juice.

Liberalization of this market poses a difficult problem, however, because of Japan's desire to protect its growers of mikans (a type of tangerine). But because the flavor of straight mikan juice is not nearly as acceptable as that of imported orange juice or a blend of mikan and orange juice, the Japanese appear to be grossly underestimating the market potential. FAS estimates indicate that there is a potential market in Japan for a per capita orange-juice consumption of at least half the U.S. level, which would mean a market in excess of 150 million gallons of juice on a single-strength basis.

If bulk orange concentrate is liberalized, there should be a potential annual market for at least $50 million of U.S. juice during the next 3 to 5 years. The principal competitor for the orange juice market will be Brazil.

Frozen foods. Potential for expanding the very small sales of U.S. frozen foods seems slight, in view of Japanese efforts to protect the domestic industry through excessive tariff and nontariff barriers. In addition, high U.S. freight rates vis-a-vis those for competing exporters inhibit sales.

Production of frozen foods in Japan has been rising sharply, with a fourfold increase since 1965 to an estimated 184,000 tons in 1971. Prepared foods accounted for more than half the total, and vegetables for 13 percent. About two-thirds of the frozen foods produced are for institutional use and a third for household, with both groups likely to show a sharp expansion in consumption during the years ahead.

JAPANESE PURCHASES of frozen vegetables in calendar 1971 totaled 8,500 tons and came largely from New Zealand, the Republic of China, and Mainland China. U.S. inability to expand its market, however, lies in the fact that U.S. prices are about 10 percent higher than Australia's and New Zealand's. Differences in freight rates account for most of this spread: the Trans-Pacific Conference has established a rate of $112 per 2,000-pound ton of frozen food, granting a temporary reduction to $93; the freight rate from Australia and New Zealand is $50 a ton.

Japanese imports of prepared frozen foods, on the other hand, have been curtailed by high duties—35 percent c.i.f.—aimed at forcing the processing of prepared frozen foods in Japan. When the 35-percent duty is applied to the conference freight rate of $112 per ton, the charge becomes $150 per ton. Moreover, Japanese Government refusal to clear certain ingredients and food additives has effectively limited trade.

Melons. Most of the Japanese importers, wholesalers, and retail association representatives believe there is a market for U.S. honeydew melons in Japan throughout the U.S. marketing season. At the same time, they feel the potential is less good for cantaloups, although the problems they mention appear to be ones that can be overcome without too much difficulty.

For both products, the challenge is to adapt to Japanese tastes and ways of doing business. Present packaging of U.S. honeydews appears satisfactory, but Japanese complaints of a lack of uniformity and their preference for a high sugar content need to be considered. The sweeter, and thus more mature, melons have a shorter shelf life than those harvested earlier. However, with fast container ships, it should be possible to supply melons at an acceptable stage of maturity.

Complaints about U.S. cantaloups have centered around the size of crates, which contain about 80 pounds of melons and are reportedly much too large for the Japanese market; lack of uniformity in sizing of melons; bruising of melons in transit; and improper maturity.

DESPITE JAPANESE DOUBTS about cantaloups, it appears that these may actually be easier to sell in the mass market than honeydews, partly because of the larger U.S. production. Retail prices for U.S. cantaloups could probably run around 200 to 250 yen. The "gift" market for melons and fruit is relatively small in Japan.

Tree nuts. As a result of rapidly rising purchases over the past few years, Japan is in position soon to surpass West Germany as the No. 1 importer of California almonds. This growth followed FAS's establishment of an Export Incentive Program with the Japanese almond trade 4 years ago, at a time when U.S. almond shipments to Japan totaled only about $4 million.

The subsequent jump in demand moved exports to $7 million in fiscal 1972. For fiscal 1973, bookings have surged to between $20 million and $25 million, although a smaller U.S. crop may drop actual shipments below this level. Despite the current shortfall, U.S. production is trending sharply upward, and the United States should continue

U.S. AND JAPANESE DUTIES FOR SELECTED HORTICULTURAL PRODUCTS

Item	Approximate weight of package	Duty	Approximate dollar cost of duty
		Cent per	
U.S. import duties:	*Pounds*	*pound*	*Dollars*
Mikans, fresh	40	1.0	0.40
Mikans, canned	50	.3	.15
Japanese import duties:			
Grapefruit and oranges:		*Percent*	
Dec. 1 to May 31	40	40	2.20
June 1 to Nov. 30	—	20	1.10
Orange juice—nonsugared, 5 to 1 conc. (1-gallon)	—	25	.88
Grapefruit and lemon juices	—	22.5	—
Peaches, canned	50	25	2.00
Fruit cocktail canned	50	25	2.50
Almonds, bulk	50	9	4.14
Almonds, packaged	50	20	12.50
Raisins:			
Bulk	50	5	.82
Packaged	50	10	2.00
Frozen vegetables	50	10	2.00
Frozen prepared foods	50	35	[1] 18.55
Lettuce and celery, fresh	40	5	.25
Honeydew, fresh	25	10	.30
Cantaloups, fresh	80	10	.90

[1] There will be a wide variation in prices. Cost of duty calculated at $1.00 a pound plus 6 cents a pound freight.

able to supply this growing market. The goal for 1975 shipments is $30 million.

Currently, the Japanese duty on bulk almonds is 9 percent, and that on retail packs is 20 percent. To capitalize on the lower rate, the leading cooperative in California has already made plans to ship bulk almonds and have the retail packs made up in Japan.

U.S. walnuts, by contrast, encounter severe competition in the Japanese market from the People's Republic of China, which generally sells below world prices.

Dried fruits. Nearly all U.S. dried fruit exports to Japan are raisins, for which Japan is the largest U.S. market, taking about 23,000 tons a year. However, small quantities of prunes are also shipped.

FAS has since 1960 assisted the U.S. raisin industry in a promotional program in Japan, and the United States in recent years has held about 90 percent of that market. This fiscal year, however, U.S. exports will be down sharply as a result of a reduced crop caused by severe frost damage last March. With production estimated to be only about 40 percent of a normal crop, the United States will lose a substantial portion of the Japanese market in fiscal 1973 to Australia.

The Japanese duty is 5 percent for bulk raisins and 10 percent for retail packs, prompting the Japanese to import bulk raisins and repack them for retail.

Canned peaches and fruit cocktail. With the Japanese peach crop trending slightly downward, imports of canned peaches can be expected to reach 2 million cases, basis 24 2½s, in the next few years, compared with 181,000 in fiscal 1972. The United States has supplied most of the imports until recently, when competition from Australia and New Zealand stiffened.

U.S. quality is consistently better than that of competing suppliers, which appeals to the Japanese, who prefer choice peaches in heavy sirup. Halves are preferred for all uses except the school lunch program, which takes sliced peaches.

HOWEVER, THE UNUSUALLY high freight rate—$1.65 a case from San Francisco to Japan—is a negative factor which has allowed competitors to gain a foothold in the market. This is especially significant since Australia and South Africa can undersell American exporters by about $1.00 a case. With a more reasonable freight rate, the United States should be able to maintain a substantial portion of the Japanese market.

Fruit cocktail sales are small and mostly to Western-style hotels.

FAS has agreed to support market development promotions of choice peaches and fruit cocktail in heavy sirup, provided labels give prominent identification to U.S. origin.

Fresh vegetables. Japan is almost self-sufficient in production of fresh vegetables but does import some U.S. products. One drawback heretofore has been the change in market prices between the time of placing overseas orders and delivery, but the new fast containerships should materially reduce this lead time.

Imports of iceberg lettuce have been affected by Japanese attempts at production. Domestic quality is not equal to that of California-Arizona lettuce: leaves are thinner and will not hold up as long as the U.S. lettuce. However, importers say they can only import when the wholesale price is above 1,500 yen ($5) per carton, which in Japan normally contains about 18 heads of film-wrapped lettuce.

Further retarding imports are stiff sanitary regulation, requiring, for instance, fumigation with cyanide gas if one aphid is found in a containerload of imported lettuce. When this is required, marketing delays and damage from fumigation make the lettuce virtually unsalable.

There is a small import market for celery and also a small Japanese production. The trade states that the Japanese prefer the large outer blades of celery, which are usually eaten fresh with only salt added. In one department store, two outer blades of celery sold for the equivalent of 22 U.S. cents. Because of the good market in the United States for celery hearts, it might be possible to pack the outer blades in cartons and market them in Japan. The same fumigation procedures used for lettuce apply for celery.

Japan is usually short of fresh onions from January to April. The Republic of China is the normal supplier, but at times substantial amounts are purchased from the United States, principally Oregon.

U.S. potato exports to Japan are currently prohibited by Japanese plant quarantine officials. Their published reasons are the threats posed by golden nematode, Colorado potato beetle, and potato wart, sometimes referred to as canker. However, the restrictions seem severe since clean potatoes would not be a carrier of the beetle and the golden nematode and potato wart are present only in small areas of the country and nearly all U.S. potato areas can be certified free of them. If the quarantine ban is lifted, there would probably be a market for a limited quantity of Rusett Burbank potatoes.

Processed vegetables. FAS is working with the three potato commissions in Washington, Oregon, and Idaho to develop a market for processed potatoes. Some of these products are usable in the frozen prepared foods and also in the fast food franchises now being started in Japan. Thus, there should be a growing demand for frozen french fries and other potato products, provided freight rates can be brought down to meet competition from Canada and other suppliers.

AS JAPAN'S FOOD-PROCESSING industry expands, there should be a growing market for high-quality U.S. dehydrated vegetables, especially onions and garlic.

Prospects are good for a substantial increase in sales of U.S. canned corn. Exports, totaled 82,000 cases (of 24 lb.) in fiscal 1972 and 74,000 cases in the first 4 months of the current season. Quality of U.S. corn is superior to both local production and imports from other countries.

Grapes. There should be a good market in Japan for Emperor grapes from about December 1 to the end of February. Also, importers have inquired about the availability of fresh Thompson seedless grapes, which could be exported between late June and September if fast container ships are used. However, this is not a good year for market testing, as spring frost damage greatly reduced the grape crop in the United States.

Japan also imports concord grape juice—which is used in jams, jellies, grape juice, soft drinks and wine, and for other purposes. However, there is a hidden quota, under which importers' requests for a quota may or may not be issued. Thus, without liberalization or a published quota, it is impossible to plan a marketing program. The U.S. position is to press for liberalization.

USSR ANNOUNCES 1973 FARM OUTPUT GOALS, PLANS RECOVERY

By ROGER S. EULER
Foreign Demand and Competition Division
Economic Research Service

The Soviet Union's targets for 1973 farm production, partly made public following the December meeting of the USSR Supreme Soviet, suggest that a major agricultural recovery is planned this year. An increased level of farm inputs is scheduled to recoup the crop and livestock product losses that resulted in 1972 from unfavorable weather and other problems.

Although information on the total pattern of the USSR's agricultural efforts in 1973 is so far incomplete, the year's performance will be of critical importance to fulfillment of Soviet 1971-75 production plans. Of great importance to U.S. agriculture is the amount of importing that the Soviets do against possible feed shortfalls in 1973 and later.

This year's gross agricultural production is slated to rise 12.6 percent over the depressed 1972 level, which fell 8 percent from 1971's record output.

To accomplish this production increase, an investment of 25.4 billion rubles[1] in agriculture by the government and collective farms has been scheduled. This amount is about 10 percent larger than the planned 1972 investment and is intended to supply more fertilizer, machinery, buildings, and other inputs.

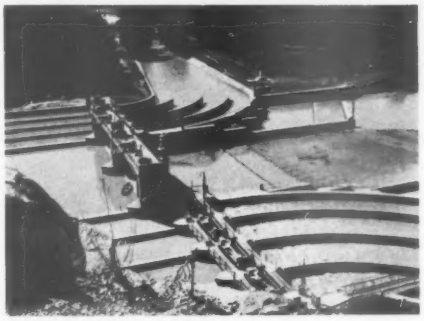
[1] 1 ruble = $1.22. In West European exchanges having infrequent dealings in rubles, however, the ruble is often discounted considerably.

The goal for grains, considered of central importance to the whole agricultural plan, is a gross output of 197.4 million metric tons, a considerable gain over the 168 million tons now claimed for 1972. Although no other commodity production goals were announced, indications were that several targets, including some livestock products, may have been lowered from previous plans. Cotton targets were not released, but the 1972 raw cotton output reportedly set a new high of 7.3 million tons, well above the 1972 goal of 6.6 million tons.

THE SOVIETS NOW claim that the value of gross agricultural output in 1971 was 87.9 billion rubles, the largest to date, and imply that the corresponding 1972 value was about 81 billion rubles. If the 1973 goal is reached, a record high value of about 91 billion rubles would result, although this would be only 3.5 percent more than in 1971.

At this level, the value of gross agricultural output in 1974 and 1975 would have to average 112-116 billion rubles annually to meet the stated target of a 20-22 percent increase in average 1971-75 production, compared with the 1966-70 average. Without considerable overfulfillment in 1973, therefore, the overall 1971-75 goal will apparently be out of reach.

Targets for 1973 include a 14.3 percent growth in output on state and collective farms, indicating that rela-



Planned Soviet farm inputs in 1973 include new tractors, such as those ready for shipment at the Minsk Tractor Plant (top), and irrigation introduction or improvement like sprinkler installations (center) and the large Chumysh irrigation scheme (above). Also announced were goals for grain output, to be stored in elevators, below.

tively more is expected from these than from the private plots and livestock holdings of state farm workers and collective farm members.

State investment of capital in agriculture—claimed to be consistent with earlier 5-year plans for 1973—is scheduled to total 16.4 billion rubles this year, 11.7 percent more than in 1972.

A TOTAL OF 6.1 billion rubles of this state investment is tagged for land improvement—16 percent more than was used last year. This includes the introduction of irrigation on 701,000 hectares of land and new drainage of 911,000 hectares.

Facilities financed with state investment funds are also due to increase in 1973, with almost 19 percent more capacity than was added in 1972 for large-scale poultry production, 2.2 times more hog raising and feeding complexes, and 1.5 times more big storage facilities for fruits, potatoes, and vegetables. The planned collective farm investment of 9 billion rubles compares to 8.4 billion scheduled in 1972.

Other new agricultural inputs planned for 1973 include some 57 million tons of fertilizer. If realized, this amount will be 3.4 million tons larger than that supplied in 1972, but the increase will be smaller than those in 1971 and 1972.

For machinery inputs, 328,000 new tractors are to be provided to agriculture. In terms of numbers this is said to be only 3.8 percent more than in 1972, but in terms of horsepower, the increase will be 11 percent. Twenty percent more trucks and specialized motor vehicles are to be supplied than last year, a total of 224,500. Of about 94,000 grain combines to be provided in 1973, 66 percent, or 62,000, will be the newest and highest capacity models, compared with 21,000 in 1972.

The value of other agricultural machinery scheduled to be supplied this year is 3.13 billion rubles, an increase over the 2.8 billion rubles planned for 1972. Of the farm machinery to be provided in 1973, machines and equipment valued at 1.2 billion rubles will be used in livestock production and local feed preparation units.

The 1973 gross grain production target of 197.4 million tons, including pulses, is well above production for the past 3 years—not only the 181.2 million tons of 1971 and the 168 million of 1972, but even the claimed record of 186.8 million for 1970. If the 1973 goal is reached—which would be quite an achievement—Soviet grain output would still have to average about 214 million tons in 1974 and 1975 in order to gain the planned annual average of 195 million tons during the 1971-75 period. Based on what we know about average weather conditions and the applicable planned inputs, this does not appear to be possible.

If the Soviets retain the 1971-75 annual average target, the question of their reaction to prospective grain production shortfalls is of great importance to U.S. farmers. Even with average weather, the trend of the past 15 years indicates that Soviet grain output could be 5-10 million tons below the 1973 target. The shortfall could be even greater in 1974 and 1975, if current 5-year planning is continued.

(The possible effects on 1973 grain production of the delayed and reduced sowing of winter grains last fall were reviewed in *Foreign Agriculture*, Dec. 11, 1972.)

THE LARGE 1972 SOVIET grain and soybean purchases indicated intentions to import feedstuffs when necessary to protect their new emphasis on livestock plans. (See *Foreign Agriculture*, Oct. 9, 1972.) The question arises, however, as to what might happen if a lack of feedstuffs should persist for several years. In their published statements about current agricultural plans and progress, the Soviets have given no hint about their trade actions under such circumstances.

Releases from the Supreme Soviet meeting contained no other agricultural goals for 1973, but did say that the "majority" of all agricultural commodity production targets were in line with the original 1973 goals set in the 1971-75 plans. This may mean that some targets have been reduced from levels scheduled earlier for 1973.

Perhaps one further indication is that 1973 state buying goals for meat, milk, wool, and grapes have been reduced from earlier levels, while those for vegetables, eggs, and tea have been raised.

Therefore livestock slaughter, at least for cattle and sheep, may have been higher in 1972 than originally intended. If so, any cutback probably would be primarily temporary, designed to permit expansion of livestock herds for more rapid growth in output in future years. The forthcoming publication of January 1, 1973, livestock numbers should shed further light on this matter.

Since the announced 1972 seed cotton production more than assured the 1971-75 annual average goal and also exceeded the 1975 target, further upward revision of these goals may be in the making. Cotton was the only success story in Soviet cropping in 1972.

Other important readjustments have been planned for the Soviet economy in 1973. Significant cuts have been scheduled in industrial output growth rates, especially for consumer goods. Nevertheless, Soviet officials have stated that market supplies of foods and consumer durables generally will ensure "normal" buying this year. National income is supposed to rise 6 percent and real per capita income 4.5 percent, from the corresponding 1972 amounts.

Plans call for a 5.8 percent increase in all industrial production in 1973, compared to the 7.8 percent increase from the 1972 level previously scheduled for this year. The cutback for heavy industry was from a 7.6 to a 6.3 percent increase, while that for consumer goods was from an 8.1 to a 4.5 percent increase in 1973.

Total industrial output in 1972 was estimated to be 6.5 percent larger than in the previous year, against the 6.9 percent increase targeted. This slowdown last year was due mainly to lags in completing new production facilities in the ferrous metallurgy, chemical, oil, gas, and light industries.

The food industry and light industry also were adversely affected by reductions in a number of raw materials from the problem-plagued agricultural sector. Revised 1973 plans dictate production growth of only about 2 percent in the food industry and 4 percent in light industry.

THE PLANNED 1973 increase of 6 percent in the national income can be compared with an average growth of 5 percent in 1971 and 1972. The average wage of industrial and office workers is supposed to increase 2.7 percent in 1973, and the average earnings of collective farmers is scheduled to increase by 4.4 percent. In the previous 2 years, the increase for industrial and office workers averaged 3.5 percent and that for collective farmers 4 percent. Growth in real income, which is slated to be 4.5 percent in 1973 averaged 4.1 percent in both 1971 and 1972, according to Government estimates.

One of three U.S. cotton trade missions, back from its November trip to explore export prospects, reports good news for this season's

Far Eastern Market for U.S. Cotton

By W. GLENN TUSSEY [1]
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Export Marketing Service

Far Eastern cotton importers are looking to the United States this year to fill a larger share of their expanding needs. As a result, U.S. cotton sales to the five important cotton importers of the Far East—Japan, South Korea, the Republic of China, Hong Kong, and Thailand—could jump by as much as 40 percent—to around 2.4 million bales in the marketing year ending July 31, 1973. This could help boost total U.S. cotton exports during the year to 4 million bales (480 lb. net), compared with 3.4 million last season.

Ever mindful of past problems, however, the U.S. cotton industry continues to keep a watchful eye on developments among competitors, especially the Pakistanis, whose expanding sales of low-cost cotton yard have already begun to make inroads in some of the raw cotton markets.

These, in brief, are the findings of the U.S. Cotton Trade Mission to the Far East, which under the joint sponsorship of the U.S. Department of Agriculture and Cotton Council International met November 8-25 with Government and industry representatives in the countries concerned.

Purpose of the visit was to detail the U.S. cotton situation, particularly the outlook for the current marketing year, and answer questions relating to quality, prices, supply, financing, shipping, U.S. export programs, promotion, and research.

The team found considerable interest in the Far East for U.S. cotton, buoyed by growing demand from expanding textile industries at a time of low stocks and the availability of U.S. growths at generally competitive prices. These factors have bolstered expectations that the United States will capture over 40 percent of the nation's 1973 cotton imports of some 6 million bales, compared with only 31 percent of last season's 5.5-million-bale import.

The enlarged demand comes from all five of the countries visited. Japan, for instance, has already purchased more cotton from the United States than in all of the 1972 marketing year.

TEXTILE INDUSTRIES are expanding dramatically in all countries visited except Hong Kong and Japan. Capital from these two countries is seeking investment opportunities in lower wage countries such as Malaysia, Indonesia, and Thailand.

The optimistic outlook hinges, of course, on continued competitive pricing of U.S. cotton and materialization of a generally fair-quality crop. Widespread rains in the U.S. cotton belt at the time of the team visit had dimmed prospects for high-grade cotton, but this type is scarce in other exporting countries as well.

The most dramatic effect of the rains was on cotton prices, which rose—sometimes by as much as 100 points per day—throughout the team's sojourn abroad. December futures prices (Middling 1-1/16″), for instance, climbed from 30.15 cents per pound to 34.25. The spot price for Middling 1-1/16″ rose 325 points and Strict Low Middling 1-1/16″ from just under 26 cents per pound to over 29 cents while the team was traveling. Prices of the lower grade, shorter staple cottons also advanced as attention turned in their direction.

Although these price increases caused some concern on the part of importers, the interest in U.S. growths remained strong. The general feeling was that foreign textile prices, which did not decline along with cotton prices during calendar 1972, will permit an upward adjustment in cotton prices without putting a pinch on attractive mill margins. This probably accounted for the willingness of importers to book cotton with a minimum of price haggling. Caution was evident, however, among exporters who committed high grades early and were now reluctant to sell qualities that would be hard to find in the current crop.

Among the foreign competitors, only the Pakistáni cottons and reportedly subsidized yarn aroused concern among the U.S. trade. African growths were comparable in price to U.S. cotton of similar quality, and the South Brazilian crop, based on planting seed sold—which is reportedly 20 percent less this year than last—was expected to sell in line with going world market prices. Consequently, even though U.S. prices were rising during the team's visits, they were generally competitive, which, of course, was a highly important selling point.

In **Japan,** importers spoke of the subsidized Pakistani yarn as a factor that is reducing their cotton requirements. They also expressed the desirability, from their viewpoint, of more cotton price stability. This, they believe, can be better obtained through larger world stocks—sufficient supply for at least "5 to 6 months."

According to the Cotton Traders Association, Japan has already purchased 800,000-850,000 bales of U.S. cotton this season, compared with 758,000 in all of 1972. Although no commitment has been made beyond a "moderate increase" in purchases of U.S. cotton, the obviously high interest in the cotton, plus sales already made, indicate that U.S. sales there may rise to about 1 million bales by the end of the current season.

The Japanese have also made some purchases—perhaps 350,000 bales—of Soviet cotton, since only the USSR has been able to offer high grades in world markets.

In **South Korea,** a booming textile industry is enhancing export prospects for U.S. cotton. The industry is adding spindles at a rapid rate and increasing its use of both cotton and manmade fibers. As a result, Korean cotton textile exports this season are already 30

[1] Mr. Tussey was leader of the mission, which also included G. Thomas Akers, Jr., Bakersfield, Calif., representing AMCOT, an organization of U.S. cotton marketing cooperatives; Walter Schaer, Houston, Texas; and James A. Lee, Memphis, Tenn., of the American Cotton Shippers Association; and Thomas W. Fink, Washington, D.C., Cotton Council International.

percent ahead of last season's with Japan and Taiwan included as destinations for shipments.

To satisfy this growing industry, the Koreans expect to import around 740,000 bales in the 1973 crop year, compared with 575,000 in 1972. These requirements are almost totally met by U.S. cotton—about 40 percent of which has already been purchased.

Unlike the other importers, Korea still gets a large share of its cotton under Public Law 480, although commercial sales with CCC credit arrangements are also attractive because of interest rates much lower than the 15.5 percent prevailing in Korea.

With Korea's rapid textile expansion, the time may not be too distant when U.S. cotton exports to Korea equal or exceed those to Japan.

The **Republic of China (Taiwan)** also is expanding its textile industry, with spindle numbers expected to rise to 2 million in 1973 from 1.7 million last year. In addition to growth in raw cotton needs, Taiwan—as well as the other countries visited—is tending toward better grades, longer staples, and 3.0 or better micronaire.

During crop year 1973, Taiwan's trade expects to import over 700,000 bales, of which 400,000 will be 1972-crop cotton. Of the new crop, 60 percent or more will probably be from the United States, depending on competitive factors.

In **Hong Kong,** higher labor costs have contributed to a 20-percent reduction in spindle numbers—down to around 800,000. With labor costs almost as high as those in Japan, Hong Kong capital is shifting to lower wage areas such as Malaysia and Indonesia—a trend which some sources believe will culminate in the textile industry shifting almost entirely out of the Colony.

BECAUSE OF HIGHER costs, Hong Kong is a very price-conscious market—a trait on which Pakistan has been able to capitalize. Also, in the past about 25 percent of Colony cotton has come from Commonwealth preference areas, but these preferences are being phased out as a result of the United Kingdom's entry into the European Community.

Despite the long-term prospects for Hong Kong's textile industry, it looks as if Hong Kong will take 100,000-150,000 bales of U.S. cotton this marketing year, which is double or triple last season's low import. About 50,000 of this total is still to be bought.

There was also evidence in Hong Kong of interest from the People's Republic of China in larger-than-usual cotton purchases. A rumored purchase by China of 50,000-100,000 bales of Pakistani cotton at the time of the team's visit, for instance, boosted Karachi prices.

Hong Kong sources verified the fact that China, which still allocates textiles, is in the market for more cotton than usual. Some American shippers have reportedly sold non-U.S. growths to the Chinese, with rights to substitute U.S. cotton.

In **Thailand,** the textile industry is benefiting from both local and foreign—Hong Kong and Japanese—investment. Spindle numbers are expected to rise to a million from the 750,000 currently existing; 600,000 of these are on cotton.

This expansion, plus pest problems that have held domestic production this season to around 20,000 metric tons, has led to increased Thai imports of cotton. As of late November, Thailand had purchased about 150,000 bales of U.S. cotton.

Top, imported cotton is moved into a Hong Kong warehouse. Above, a Japanese style show features clothing made of cotton.

Growing Livestock Output Spurs Portugal's Imports Of U.S. Feedgrains And Oilseeds

By JAMES LOPES
Foreign Demand and Competition Division
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The United States is benefiting from a dramatic rise in Portuguese imports of feedgrains, oilseeds, and other feedstuffs, resulting from a rapidly growing livestock industry. The future market is expected to continue strong, since Portugal's output of coarse grains cannot meet mounting livestock production and increased demand for meat and meat products.

During January-August 1972, Portugal's imports of U.S. feedgrains, oilseeds, and other feedstuffs rose to $24 million, or 44 percent above the comparable period of 1971. Imports of U.S. corn during this period slightly exceeded 200,000 metric tons, or one-fifth above the comparable 1971 period.

In the same 8 months, Portugal took from the United States 44,000 tons of oilseeds, including 24,000 tons of soybeans, and 24,000 tons of oilseed cake and meal—more than double the quantity of these products imported in the same period of 1971.

In calendar 1971, Portugal's imports of U.S. feeds more than tripled in value, compared to the 1968-70 average. The U.S. share of Portugal's feed market totaled over $48 million—more than 40 percent of the value of all feed imports. U.S. exports consisted of 342,000 tons of corn and 62,400 tons of barley valued at nearly $34 million; 56,400 tons of oilseeds, mainly soybeans, valued at $9 million; nearly $2 million in feed concentrates; and $3.4 million worth of tallow.

Portugal's total imports of these feed products soared to $49 million during the first 8 months of 1972, or one-half above the similar 1971 period. Total corn imports amounted to 400,000 tons, compared to 230,000 tons imported during the same period of 1971. Imports of soybeans and peanuts, totaling 80,000 tons in this period, almost doubled 1971's imports of 41,000 tons.

Feedgrains, oilseeds, and other feedstuffs accounted for about a third of Portugal's total agricultural imports in 1971, topping $110 million, and rising 60 percent above the 1968-70 average.

Import demand is expected to continue strong, as Portugal has little prospect for future self-sufficiency in coarse grains. Although output of oats and rye is sufficient to meet domestic needs, production of other coarse grains, particularly corn, has not kept pace with expanding requirements. Except in years of unusual weather, Portugal's corn and barley production has not deviated much from the yearly average of 550,000 tons and 62,000 tons, respectively, produced during the 1960's.

In the 1970's, Portugal's corn area is likely to continue decreasing, and corn production is not expected to surpass 700,000 tons. Hybrid varieties are used in only 10 percent of the corn-growing areas, since farmers prefer local varieties, which grow taller than hybrids and require less mechanization and lower fertilization. Local varieties are planted at high density by small-scale dairy farmers—then thinned during the growing season for use as forage.

Portugal's total utilization of coarse grains—for food, feed, and other uses—approached 1.6 million tons in 1971, or nearly three-fourths above the average in 1960-64. In recent years, use of grain for feed has shown the highest rate of increase in Western Europe—rising an average of 9 percent a year since 1955.

Feed uses of coarse grains have expanded rapidly, increasing from an average of 584,000 tons in 1960-64 to about 1.3 million tons in 1971. Corn, the principal coarse grain fed in Portugal, has accounted for the bulk of this increase, with usage approaching 900,000 tons in 1972, more than double the average in 1960-64.

The high proportion of corn used for direct human consumption has limited the corn available for feed use. Per capita consumption of corn averaged 35 kilograms in 1960-64. As much as 300,000 tons of corn a year were used for bread up to the mid-1960's. More recently, cornbread consumption has declined, but is still estimated to require about 200,000 tons of corn a year. Some corn flour is used in baking second-quality and third-quality bread.

Large and increasing quantities of oilseed cake and meal and other feed ingredients are also being used, as indicated by imports in recent years. In 1971, Portugal crushed nearly 100,000 tons of imported peanuts and soybeans, and still imported 120,000 tons of oilseed cake and meal and 60,000 tons of other feed ingredients.

The sharp increase in use of feedgrains and oilseed cake and meal is strongly related to the rise in the production of mixed feeds, particularly in the broiler and egg industries. More

PORTUGAL'S IMPORTS OF FEED AND FEED INGREDIENTS

[In millions of U.S. dollars]

Commodity	1968-70 average		1971	
	Total	From the United States	Total	From the United States
Feedgrains, total	28.4	9.5	48.8	33.8
Corn	26.5	6.7	38.1	28.8
Barley	1.5	.3	8.4	4.6
Oilseeds, nuts, kernels, total	27.8	1.6	35.1	9.1
Soybeans	2.7	2.1	7.9	7.8
Peanuts	19.0	—	12.8	1.1
Feed concentrates, total [1]	10.4	2.4	22.4	1.8
Soybean meal	2.2	1.4	3.8	.4
Other oilseed cake and meal	.9	.6	7.9	1.2
Tallow	2.2	1.6	3.5	3.4
Total	68.8	15.1	109.8	48.1

[1] Residues of the food industries (meat and fishmeal, oilseed cake, sugarbeet pulp).

mixed feeds are also being used in hog and dairy production. The greater part of the hog industry today is modern and efficient, and production of fat hogs fed on acorns has been replaced by production of lean hogs which are fed commercial feeds. Dairy farmers are turning to mixed feeds to supplement other feeds, particularly in the winter months. In 1970 ingredients in mixed feeds were (in thousands of metric tons):

Grains:	
Corn	335
Barley	65
Other	42
Total	442
Oilseed cake and meal:	
Soybeans	49
Peanuts	25
Other	55
Total	129
Other ingredients	202
Total	773

In only 10 years, mixed feed output in Portugal has increased ninefold to about 1.2 million tons in 1972. About 37 percent of the 1970 mixed feed output was poultry feed, 33 percent hog feed, 25 percent cattle feed—primarily for dairy cattle—and the remainder was sheep and goat feed.

The rising demand for livestock products led to a doubling of red meat production between 1960 and 1972—to 234,000 tons. Combined production of beef and veal increased nearly twofold in this period, totaling 110,000 tons in 1972.

Pork production, however, did not change much, with output at roughly 100,000 tons in 1972—about equal to the early 1960's. Occasional outbreaks of swine fever and marketing problems due to insufficient refrigeration during peak periods have restrained

Portugal's output of oats (above) is sufficient to meet domestic demands. Production and consumption of such livestock products as broilers (top), sheep (top right), and cattle (right) are rising rapidly.

pork production increases.

In 1972, poultry slaughter is estimated at 60 million birds, producing nearly 70,000 tons of meat, a more than fourfold increase over 1960. Egg production has increased more than one-half in the same period to about 50,000 tons. Roughly 600,000 tons of milk, including sheep and goat milk, were produced in 1972, or nearly one-third more than in 1960.

Portugal's Government is promoting the expansion of livestock production. Under the Third Plan (1968-73), about $125 million, or 24 percent of the Government's planned expenditure in agriculture, has been allocated to the development of livestock and forage. Price supports, subsidies, and low interest loans are increasingly being used to stimulate livestock production.

Portugal's consumption of livestock products is rising rapidly. Per capita consumption of red meat went from an average of 43 pounds in 1960-64 to about 60 pounds in 1972. In the same period, per capita consumption of poultry meat increased more than fourfold, going from 3.1 pounds to 15.0 pounds; and per capita consumption of milk, including sheep and goat milk, rose from 78 pounds to 148 pounds, with cow's milk totaling 110 pounds.

Purchasing power is increasing and consumption patterns are changing, stimulated by migration to cities from rural areas—where homegrown products such as potatoes, fresh vegetables and pulses provided a large part of the diet. Rising tourism is also contributing to the increased consumption of livestock products.

With rising incomes, consumers are expected to continue to accelerate demands for beef, dairy products, broilers, and eggs. Portuguese consumption of these products is still relatively low by European standards. For example, Portuguese consumption of beef and cow's milk, at 33 and 110 pounds, respectively, is less than half that of France.

Although production of livestock products has been increasing since 1960, assisted by imported feeds, the output has not been enough to cope with the quick rise in consumption. The result has been high prices for livestock products and increasing imports of livestock products. In 1971, imports of meat and dairy products amounted to $33 million, a twofold increase over the 1968-70 average.

This expansion in livestock production and consumption will require more grains, oilseeds, and feed concentrates. Based on a linear trend between 1955-70, coarse grain requirements for feed are likely to reach 2 million tons by 1980, from 1.3 million tons in 1972.

CORN IS EXPECTED TO constitute a large proportion of all grain fed to livestock. Consumption of corn, based on the linear trend, could range between 1.5 million and 1.7 million tons by 1980. This would be about double the current level, and would require imports of about 1 million tons of corn by 1980. Also, more tallow will be needed by the mixed feed industry.

The Mixed Feed Association (Gremio Nacional dos Industriais de Alimentos Compostos para Animais) expects production of mixed feeds to reach 1.8 million tons by 1975 and 2.4 million tons by 1980. This level of production could be attained with current plant capacity if three work shifts were used, rather than one.

The United States should continue to supply a large part of Portugal's feed import requirements. Although prospects for future sales of corn to Portugal look promising, the United States must compete with Angola and Mozambique, two of Portugal's overseas states, and other world suppliers—Brazil and Argentina in particular.

Until recently, Angola and Mozambique supplied about half of Portugal's corn imports. However, these supplies are falling as a result of the rapid rise in corn use in these colonies, combined with decreased production. During 1968-72, corn production averaged 703,000 tons in Angola and Mozambique, 6 percent below the average in 1961-65.

In recent years, Portugal's imports from these overseas states have trended rapidly downward—44,000 tons in 1971, as compared with 230,000 tons in 1968. Also, imports consist mainly of white corn used by the food industry, not competitive with U.S. yellow corn used primarily for mixed feeds.

Other corn suppliers, such as Argentina and Brazil, have moved into the Portuguese market. During 1969-71, Portugal's imports of corn from Argentina and Brazil averaged close to 100,000 tons a year.

Also, the trade agreement with the enlarged European Economic Community (EEC) in July 1972, which commits Portugal to maintain or increase grain imports from the EEC, could result in increased competition from that area. In recent years, competition from the EEC in the Portuguese coarse grain market has been relatively minor. During 1969-71, Portugal's imports of coarse grains from the EEC averaged 45,000 tons—including 10,000 tons of corn—slightly less than one-tenth of total imports.

Portugal's imports of soybeans may show a substantial expansion. In 1970, Portugal opened its first soybean crushing plant, with a capacity of roughly 55,000 tons, and it plans to construct another plant. In 1971, Portugal crushed 53,000 tons of soybeans, nearly all from the United States.

The major obstacle to increased crushing of soybeans is the legal acceptance of soybean oil as an edible oil. Soybean oil is currently classified as an inedible oil and its sale for human consumption is prohibited. However, there are pressures for change.

PORTUGAL'S PRODUCTION of olive oil is encountering problems such as rapidly rising costs of production and shortage of labor for harvesting. Imports of olive oil have occasionally been needed to meet domestic requirements. Also, consumers are demanding an edible oil which is cheaper than the peanut oil now available.

The Portuguese soybean market will probably be dominated by the United States, although strong competition from Brazilian soybeans is likely. Portugal's imports of U.S. soybeans have increased rapidly from 13,643 tons in 1969 to 41,500 tons in 1970, and on to 52,540 tons in 1971. The United States provided 78 percent of Portugal's total imports of soybeans in 1969 and 1970 and all the imports in 1971. Brazil's soybean shipments totaled 5,000 tons in 1969 and 10,732 tons in 1970, or 22 percent of Portugal's total imports in the 2 years.

In 1971, Portugal imported 35,000 tons of soybean meal, valued at nearly $4 million, or 72 percent above the 1968-70 average. Livestock producers have discovered the efficiency and cost advantage of soybean meal and are demanding mixed feed containing more of this ingredient.

(Continued on page 20)

Brazil's Castorbean Shortfall and Price Rise Prompt Larger 1973 Plantings

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Importers of castor oil in recent months have been scrambling to locate scarce supplies of the product in the wake of revelations that Brazil's 1972 castorbean crop was well below expectations. This news from the world's biggest producer and exporter of castor oil caused export prices to triple in only a few months, some users of the oil to switch to alternative products, and Brazilian farmers, encouraged by high returns, to boost their 1973 castorbean plantings.

Whereas in early 1972 the Brazilian crop had been expected to reach 320,000 tons, estimates later were reduced to around 265,000. This compares with production of about 300,000 tons in 1971.

The decline came as a result of adverse weather during much of the 1972 season in both South Brazil and the Northeast. Excessive rainfall and crop damage from hail and frost delayed April-May castor plantings and subsequent plant growth in South Brazil, particularly in the State of Paraná. Also, untimely rainfall followed by a lack of rain in March, when it was needed the most, reduced anticipated production in Bahía to about 80,000 tons from earlier estimates of up to 120,000.

The 1972 crop plus small quantities of beans imported from Paraguay and year-end 1971 carryover will give a total castorbean crush of about 266,000 tons, yielding 114,380 of oil and 146,300 of meal. This could go lower, however, if reports of decreased average oil content materialize.

Because of the record high returns resulting from this short crop, Brazilian farmers are making plans for a big production surge in 1973. Interviews with industry sources indicate the resulting production gain could amount to 40 percent, or 100,000 tons, for a 1973 castorbean crop of around 365,000 tons. If reached, this would be the largest outturn since Brazil's record 1969 harvest.

Estimates of the 1972 and 1973 crops, by region and in thousands of metric tons, are as follows:

	1972	*1973*
South Brazil:		
Paraná/São Paulo	135,000	165,000
Other South Brazil (including imported Paraguay output)	10,000	15,000
Subtotal	145,000	180,000
Northeast Brazil:		
Bahía	80,000	140,000
Other	40,000	45,000
Subtotal	120,000	185,000
Total	265,000	365,000

The extremely tight supply, coupled with rising world demand for castor oil, resulted in a sudden rush of Brazilian exporters to buy oil to cover earlier sales commitments made with European buyers. This activity, plus normal demand, contributed to fantastic jumps in export prices. From about $300 per ton, f.o.b. Brazilian port, in early 1972, prices tripled to record levels of over $900 per ton. They have since settled back to below $820 per ton, but this is high compared with the $296.50 average for 1971.

The rapid price rise hurt exporters who had misjudged the market in making commitments to buyers and then lost money when having to purchase supplies during the price spiral. Moreover, expectations of a large 1973 crop point to the likelihood of a sharp price drop later this year to between $300 and $500 per ton, f.o.b.

A lack of information on stocks has also been a factor behind the export price rise. The actual amount of uncommitted stocks being held at any time by Brazilian castor oil processors is almost always difficult to determine, and this year is no exception. However, the inability of record offers by American and European buyers to flush out much additional castor oil or castorbeans leads to a general consensus that uncommitted castorbean and oil stocks were practically depleted. Accordingly, 1973 uncommitted carryover is estimated at slightly more than 15,000 tons of oil.

Through September 1972, Brazilian exports of castor oil totaled 85,000 tons, with the bulk going to the United States, France, and the Netherlands. Shipments for the full year are placed at 105,000 tons, compared with 132,658 in 1971 and 153,485 in 1970. Value of shipments in 1972, however, climbed to around $50 million, f.o.b. from $39.3 million in 1971 and $38.2 million, in 1970.

Assuming increased plantings and good weather for the 1972-73 castorbean crop, exports in 1973 could total about 160,000 tons or more. However, since January carryover of uncommitted stocks is probably much lower than normal, no large shipments are likely until after the intermediate crop begins to move into crushing and marketing channels in March.

Among the market distortions caused by the 1972 shortfall was a drop in Brazilian consumption of castor oil from a former yearly average of nearly 25,000 tons to an estimated 15,000 in 1972. Brazil's paint industries in particular are now substituting soybean oil for castor oil in their paints. Domestic firms also utilize castor oil in the manufacture of soap and brake fluid and in leather tanning and metallurgical processing. Castorbean meal is utilized in Brazil mostly for fertilizer and generally it is not detoxified.

To avoid future price gyrations such as those prevalent in 1972, the Government's Foreign Trade Division (CACEX) in late 1972 held meetings with representatives of Brazil's castor oil processing and exporting firms. Discussions centered on means of preventing high prices through increased production, export quotas, price stability, and creation of buffer stocks. Foreign buyers attending this meeting at the invitation of CACEX proposed that the Government maintain future prices between $250 and $300 per ton, pointing out that ever-increasing prices force industries abroad to switch from castor oil to synthetics.

A later meeting by CACEX reportedly explored the possibility of establishing an export-price-regulating program tied to buffer stocks. Trade sources, however, feel there is little likelihood that such a program could begin operation before 1974 because of the time needed to build up stocks.

In any case, it looks as if the current situation will have a mixed long-

term effect on the Brazilian industry.

In South Brazil, the industry is troubled by steadily increasing costs for field hands and by the high returns for competing crops, which require less labor. Moreover, if the large 1973 crop materializes, producer prices in 1973 could drop sharply, and 1974 production would thus probably return to 1972 levels or below. This has been the frustrating cyclical pattern of production and market prices in South Brazil, and most knowledgeable trade sources see little hope of proposed Government programs moderating the cycle.

In Northeast Brazil, by contrast, high producer prices for castorbeans, combined with a plentiful labor force with few alternative sources of farm income or industrial employment, should result in a steady increase in production.

AND FOR Bahía, the main producing State here, the rapid drop in production—from 170,000 tons in 1969 to an estimated 120,000 and 80,000 tons, respectively, in 1971 and 1972—may finally be arrested.

In contrast to the Southern situation, the decrease in Northeast production can be attributed almost entirely to unfavorable weather, rather than to disincentives to planting and harvesting. While yields in São Paulo, for instance, have remained practically unchanged over the last 25 years, those in Bahía have been high and rising, with no special treatment to the soil. In addition, oil extraction rates in Bahía have consistently run higher than in South Brazil, where rates for the 1972 São Paulo crop are said to have dropped to an average of only 40 percent, compared with 45 percent in Bahía.

Recognizing Bahía's production potential, one large castorbean processing and exporting firm—in cooperation with 12 producer associates and with financial incentives from the Bank of Brazil and the Superintendency for Northeast Development (SUDENE)—plans to increase its castorbean plantings from around 12,000 acres this year to 50,000 in 1973 and 91,000 in 1974. If this goal is realized, the firm would become Brazil's—and perhaps the world's—largest producer, with a planned crop of 60,000 tons of castorbeans. Modern equipment, tractors for land clearing, storage tanks, and improved seed varieties are being purchased for this purpose.

Central American Farm Output Falls

Widespread drought during the last half of 1972 has reduced food and agricultural production in most Central American countries. As a result, their total agricultural production in 1972 fell below 1971 some 3 percent.

Crops accounted for all of the agricultural shortfall, declining by over 4 percent as drought brought losses of 17 percent and more in rice, corn, and dry beans. Livestock and meat production, on the other hand, inched up.

Costa Rica. Bucking the overall trend, agricultural production here climbed some 4 percent over 1971. Crop production led the advance, rising 6 percent as a result of increases in harvested area and yields, with sugar output up nearly 16 percent; dry beans, 11 percent; and bananas, 9 percent. Grain area expanded as a result of the availability of credit, but paddy rice production still fell over 14 percent, and corn, 4 percent. Livestock production fell 3 percent from 1971 levels.

CHANGE IN TOTAL VALUE OF CENTRAL AMERICAN PRODUCTION FROM 1971 TO 1972 [1]
[Percent]

Country	Crops	Livestock	Total agriculture
Costa Rica	5.9	−3.0	4.4
El Salvador	3.4	0	2.9
Guatemala	−9.6	2.3	−7.6
Honduras	−15.6	4.0	−12.5
Nicaragua	−7.2	2.3	−4.6
Panama	−4.3	3.1	−2.5
Total	−4.3	1.4	−3.3

[1] Analysis based on preliminary data through November 15, 1972.

CHANGE IN TOTAL VALUE OF AGRICULTURAL PRODUCTION FOR SELECTED COMMODITIES IN CENTRAL AMERICA, 1971-72 [1]

Item	Change	
	Quantity	Percentage
	1,000 dollars [2]	*Percent*
Wheat	260	5.4
Rice, paddy	−6,816	−17.4
Corn	−18,975	−17.4
Sorghum	−208	−1.4
Dry beans	−6,250	−18.1
Bananas	−15,405	−6.1
Sugar, raw	7,226	11.6
Sugar, noncentrifugal	−75	−.9
Coffee	3,090	1.2
Cottonseed	−967	−4.7
Cotton	−5,365	−4.6
Tobacco	0	0
Beef and veal	3,515	3.8

[1] Based on preliminary data received through November 15, 1972. [2] U.S. dollars at constant prices.

El Salvador. Despite a drop in food output, agricultural production here was nearly 3 percent ahead of that in 1971, with crop production up more than 3 percent. However, sharp variations were apparent: Increases of 19, 10, 11, and 8 percent, respectively, in sugar, cotton, cottonseed, and coffee offset declines of 30, 20, and 9 percent in paddy rice, corn, and dry beans. Livestock production was unchanged.

Guatemala. Drought took a heavy toll here, reducing agricultural production nearly 8 percent. Crop production fell almost 10 percent, but a 2-percent gain in livestock moderated the decline. Among the food crops increasing were wheat, rice, grain sorghum, and sugar, with the latter two jumping 26 and 16 percent, respectively. Even sharper declines occurred, however, in corn, dry beans, and cottonseed—off 20, 32, and 12 percent. Cotton and coffee also lost.

Honduras. The drought was sharply felt in Honduras, as agricultural production fell 13 percent. The main decline was in crops, off 16 percent, while livestock output climbed 4 percent. Bananas led the decline in crops, falling nearly 25 percent; corn dropped by almost 11 percent, and dry beans by about 7 percent. Moderate gains took place in cotton, coffee, and sugar, while paddy rice output soared 43 percent. Beef and veal output rose 9 percent, and milk, 1 percent.

Nicaragua. Agricultural production fell 5 percent from 1971, as drought in the main producing area caused extensive crop losses. Total crop production fell by over 7 percent, with declines of 20 percent or more in grain sorghum, dry beans, and corn; a 15-percent drop in rice; and smaller losses in cotton, cottonseed, and sugar. Beef and veal output advanced almost 5 percent.

Panama. Agricultural production fell by nearly 3 percent. Again, lower crop production—off more than 4 percent—was the main factor. Among the big decliners were paddy rice and corn, off 24 and 9 percent. Livestock production rose by over 3 percent.

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Greenhouse Crop May Be Added to Turkey's Future Export Trade

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Winter vegetable gardening under glass (or plastic) on the so-called Turkish Riviera—the Mediterranean coastal region between the cities of Antalya and Mersin—has developed strongly during the past several years. The area is not yet ready to produce for the export market, but if growth continues as vigorously as in the recent past, there is a possibility that "out-of-season" vegetables may, in future years, become a valuable part of Turkey's foreign sales to nearby countries.

Statistics on planted area, number of greenhouses, kinds of crops, yields, total production, and prices received by farmers are limited and vary from one source to another, and, therefore, any analysis must be general and subjective. However, expansion in the industry is easy to determine.

Greenhouse construction along Turkey's southern coast started in the late 1940's, and expanded slowly during the early years. By 1968, total area was only about 1,200 acres, mainly glass houses around Antalya. At present, there are some 25,000 houses on about 3,700 acres. Of the total area, about 50 percent is devoted to glass houses and an equal amount to plastic-covered structures. Total capital investment in greenhouses is estimated to be about $40 million, and annual gross output about $15 million.

The industry provides employment for an equivalent of about 16,000 full-time workers mainly in Antalya and Içel Provinces. Greenhouse production has enabled many farmers to convert small farms of marginally productive land in climatically suitable areas into viable operations which could not have been economically farmed under other methods.

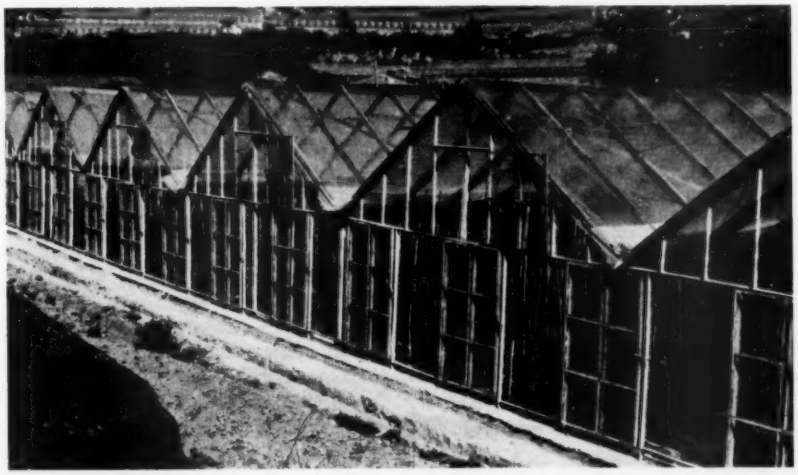
Several years ago fresh vegetables grown in greenhouses were sold only in major cities in Turkey. Now, they may be found in most vegetable markets throughout the country. Although prices are still too high for average and low income groups, it is expected that, as production increases, prices will go down and more people will buy.

Until 5 years ago almost all greenhouse production was tomatoes. But increase in tomato output brought reduced profits and farmers turned to other crops to increase their incomes. At present, tomatoes still constitute about 60 percent of total production, followed by cucumbers, peppers, green beans, and squash. Although the profit margin per unit of production appears to be on a downward trend, increasing productivity will make up some of the losses.

Local consumption will continue to grow as new markets open up in smaller towns of Turkey and prices come down to levels within the reach of more people. Within the next few years, however, most producers should have improved their operations and cut production costs to levels that would enable them to export some of their output.

Unlike some of the northern European countries, Turkish greenhouses cannot be used during the summer months because they generate too much heat. Also at that time of the year, greenhouse vegetables must compete with outdoor production. This increases the overall cost per harvest of greenhouse produce and reduces annual total income.

In general, market prices of greenhouse vegetables are high early in the season but cannot be maintained at these levels for long. For example, the producer price for tomatoes declines



Top, glass and plastic greenhouses on slope in Antalya Province.
Bottom, plastic houses and tunnels at Aksu Vegetable Research Station.

Above, lettuce being grown in stove-heated plastic greenhouse.

gradually from 90-108 U.S. cents [1] per kilogram (2.2 lb.) in January to 36-48 cents per kilo. In May, and in June it drops precipitously to only 12-18 cents per kilo. Similar price reductions affect other early vegetables.

By June, the weather warms up and cheaper outdoor production takes over most of the market, making greenhouse production an uneconomical operation at that time of the year.

MUCH OF THE SUCCESS of the greenhouse industry in Antalya and Mersin Provinces is the result of assistance given to small landholders by the Ministry of Agriculture's Vegetable Station in Aksu, Antalya, and by the Extension Services in these two Provinces. The U.S. Agency for International Development and the Food and Agriculture Organization of the United Nations also operated assistance programs in Turkey to assist winter gardeners. One FAO expert has worked at the Vegetable Station for 5 years. About a year ago two other FAO advisors were assigned to the same area.

Several aspects of reasearch have been done by a number of experts. The FAO survey of the industry and subsequent recommendations have been published in Turkish and English and serve as a reference book to many producers. The Vegetable Station at Aksu has studied and evaluated various types of greenhouses, methods of heating, propagation techniques, sowing and planting dates, soil improvement, soil sterilization, plant spacing, irrigation and fertilizer application, and crop varieties, to mention several.

In the past construction loans were made only for glasshouses. But experience has shown that glasshouses were expensive to build and brought too small a return per unit of capital investment. On the other hand, construction of plastic-covered greenhouses proved to be more economical. So, since 1970, the Agricultural Bank has provided loans for the construction of plastic greenhouses, as well as for glasshouses.

Heating is an important factor in greenhouse farming. A proper heating method is essential for a good quality crop early in the season, and fuel costs must be low. In general, heating techniques are poor in Turkey.

Hot-air heating systems seem to be the most efficient. However, the high investment required to obtain blowers —most of which are imported—puts hot-air heating methods beyond the reach of all but a few farmers. Recently, some domestically-made blowers, selling at reasonable prices, were put on the market. This development may make it possible for more farmers to heat their greenhouses by hot air.

Glasshouses with a proper heating system may produce two crops a season. The first is usually planted in October/November and harvested in January/February. The second crop is planted immediately after and harvested in April/May. In such cases, a reasonably high profit may be obtained as total expenses for the year are divided between two crops and market prices received for the first crop are normally exceptionally good.

FARMERS WHOSE greenhouses are of poor construction and inadequately heated generally produce only one crop annually. Normally they plant in January/February and harvest in April/May. Those operating plastic greenhouses can usually make a profit with one crop a year because of lower capital investment.

Most farmers in Içel Province, where almost all of the greenhouses are plastic, produce only one early crop annually. They usually plant in December/January and harvest in March/April. An earlier harvest would, of course, bring higher prices, but also requires more substantial construction and better heating.

In the area some greenhouses are built in the form of low "tunnels" and no heating is required. Plants are enclosed with plastic sheets supported by arch-like wood or iron frames. This method of production generates a great deal of heat and the vegetables must be ventilated once or twice a day by opening the ends or sides of the tunnel during the warm hours. This is a cheap and practical method of production, but no crop can be grown with this system during the cool winter months when demand and prices are high.

Although winter vegetable production is a growing segment of the Turkish farm economy, many problems must still be solved if greenhouse farming is to continue its present rate of accelerated expansion.

- Winter gardening is expanding to some areas where economical production is not feasible because of unfavorable weather conditions and the lack of marketing opportunities. This is likely to be solved by granting loans for greenhouse construction only in the most suitable areas.
- Construction costs of glasshouses are too high, thus keeping return per unit of capital investment too low. To overcome this situation better engineering and building techniques must be devised.
- Because plastic houses are cheaper to build and return per unit of capital investment is much higher than for glasshouses, the present tendency is to divert loans from glasshouse construction to plastic houses. This could result in making loans available to larger areas even with the limited capital resources at hand, and also make for a more efficient operation.
- Present heating systems must be improved. Hot-air heating systems, with locally-made blowers, must be developed. Experiments should also be run to test the possibility of utilizing thermal waters in Western Anatolia as a cheap source of greenhouse heat.
- Producers must improve cultivation practices to produce vegetables having higher yields and better quality. The Ministry of Agriculture, through Provincial Extension Services, is helping farmers by providing them with the know-how acquired in vegetable stations and at other institutions.
- The present marketing system for greenhouse production needs to be improved. Producers receive only a small share of the price paid by consumers; most of the profit goes to middlemen. In order to correct this situation and to encourage greenhouse production, the Ministry of Agriculture, as well as the Ministry of Commerce and the Ministry of Village Affairs, are helping farmers to organize marketing cooperatives or other marketing organizations.

It is likely that these efforts will insure the future growth of winter gardening in Turkey. Most of the expansion will be in Antalya and Içel Provinces, and mostly in plastic houses. However, until these improvements are effected, all of Turkeys winter-vegetable production will continue to be sold in local markets, and Turkey's entry into export markets will be slow in coming.

[1] Calculated at the Aug. 21, 1972, rate of TL14 = US$1.

CROPS AND MARKETS

Food Business-HORESCA Fair Opened January 14

Over 100 U.S. firms participated in the USDA exhibit in the Brussels Food Business-HORESCA fair January 14-18. About one-half of the exhibitors promoted institutional convenience foods for hotels, restaurants, and mass-feeding organizations. International Foodservice Manufacturers Association representatives (Chicago) were in charge of a special exhibition area featuring these products. A total of more than 1,000 products of all types were on display, many of them for the first time in that area.

Twenty-two representatives of U.S. firms and 36 overseas representatives and agents attended the Brussels show to promote their products and make sales. On opening day more than 4,000 tradesmen visited the U.S. Exhibit. The exhibitors' representatives reported contacting buyers from Portugal, Spain, The Netherlands, Germany, France, Denmark, Switzerland, Austria, and Belgium.

FATS, OILS, AND OILSEEDS

U.S. Gains Lift 1973 World Output of Fats and Oils

World production of fats and oils in 1973 is tentatively forecast at 42.9 million metric tons, an increase of 700,000 tons or 1.7 percent over 1972. This increase is below the trendline (1960-70) increase of 900,000 tons annually. However, this forecast is subject to a considerable modification, since it includes the calculated oil content of crops still to be harvested in April-June 1973, such as sunflower and flaxseed in Argentina and soybeans in Brazil. It also includes the calculated oil content of fall-harvested 1972 crops in countries such as the Soviet Union, China, Romania, and Bulgaria for which no official crop reports had been issued as of mid-January. In addition, fish oil production, as in Peru, is virtually unpredictable.

In one respect, the 1973 production picture will be quite different from that of 1972. Last year, all of the gain in production occurred in foreign countries and none in the United States. In 1973, all of the expansion will be in the United States and none abroad—where gains in some countries will be offset by losses in others.

The 1973 production picture includes a decrease of 475,000 tons (oil equivalent) in India's output—mainly peanut and rape. Since India is not an oil exporter, this major reduction in production has no impact on export availabilities. Nor will the shortfall in Indian production be fully reflected in import demand, since the Indian Government has indicated that it will attempt to make up only a fraction of the shortfall through imports.

See the January issue of *World Agricultural Production and Trade* for full details.

World Oilseed- and Meal-Export Growth Slackens in 1971-72

Exports of selected oilseeds and meals by eight major producer-exporter countries[1] during the October 1971-September 1972 period amounted to 19.45 million metric tons (soybean meal equivalent), only 150,000 tons above the 1970-71 volume. The slack growth in 1971-72 reflected a sharp drop-off in U.S. exports of soybeans and meals during July-September 1972 from abnormally high shipments during the July-September 1971 period, just prior to the U.S. shipping strikes. Additionally, the United States began to run out of soybeans toward the end of the 1971-72 season.

Net exports from the United States dropped by 1.54 million tons—equivalent to a reduction of 71 million bushels of soybeans—while major foreign competitors increased exports by 1.7 million tons—equivalent to 78 million bushels.

Increased exports of fishmeal from Peru and soybeans and meal from Brazil in 1971-72 accounted for increases equivalent to about 45 million bushels each, while aggregate meal exports from Argentina and Chile declined. Exports of oilseeds and meals from India and Canada remained about unchanged in 1971-72, while Norway's fishmeal exports increased.

In 1972-73, exportable supplies of meal from the major exporters are expected to be relatively tight. Despite sizable increases in exports from the United States, Brazil, and possibly Argentina, sharply reduced exports from Peru, India, and Chile will sharply limit growth.

[1] United States, Brazil, Peru, Argentina, Chile, Norway, India, and Canada. These countries account for 80 percent of world exports of oilseeds and meals.

U.S. Exports Soybean Oil to China

Based on November 1972 Census Bureau export data, the United States exported 11 million pounds, approximately 5,000 metric tons, of crude degummed soybean oil to Mainland China in 1972. The export value was $1.1 million.

This was the first such shipment made in 1972 by the United States to the People's Republic of China.

French Petroleum Plant Producing Synthetic Protein

In December 1972 BP France's Cap Vavera plant began delivery of biosynthetic protein from petroleum byproducts to mixed feed manufacturers under the brand name "Toprina." Although annual production from this pilot plant will not reach its full annual capacity of 16,500 tons for a year, the decision reportedly has already been made to build a larger plant with an annual capacity of 100,000 tons.

The synthetic product is a tasteless, odorless powder which contains about 70 percent protein, or about 1.6 times the 44-percent protein content in soybean meal and 8 percent more

protein than fishmeal. Although no significant shift to synthetic protein feeds is likely to take place immediately, such products are now technically feasible and will pose a potential long-term threat as vegetable and marine meal prices continue their long-term uptrend and synthetics become economically profitable.

In 1971, France's estimated consumption of soybeans and meal was equivalent to 1.3 million metric tons on a meal basis, 61 percent of its consumption of all oilseed and meals.

COTTON

Rains and Labor Problems Reduce Turkey's 1972-73 Cotton Crop

Cotton production in Turkey for the 1972-73 season (August-July) will probably not exceed last year's record 2.4-million-bale crop. Early season projections of 2.6 million bales (480 lb. net) did not materialize because of prolonged rains and migrant labor problems. The third picking was in some cases ploughed under since the high price of labor would have exceeded returns on the low quality rain-soaked cotton. The proportion of low-quality cotton in the 1972-73 output may well be the highest ever.

Domestic consumption, continuing to rise, is expected to increase 5 percent to 920,000 bales this season. Exports, too, will probably be up considerably in 1972-73 from the level of approximately 1.2 million bales exported last season.

Beginning-season stocks were higher than usual because of the record harvest in 1971-72. Turkey should therefore easily maintain its place among the top six exporters, where it has ranked for the last 5 years.

Exports through October were, however, recorded at 104,000 bales, down from 195,000 bales for the same period a year earlier. Export sales through November 27 totaled 710,000 bales (also down, from 970,000 bales to the same date last season), of which the largest portion, approximately 467,000 bales or about 65 percent, was sold to Western European markets.

An ever-increasing amount is being sold to Mainland China. This year's sales figure through November totaled 132,000 bales, compared with 49,000 bales actually exported during the entire 1971-72 season.

Cotton Production Lower in Brazil

December estimates of the 1972-73 cotton crop in Brazil project an outturn of about 3 million bales, down marginally from 3.1 million in 1971-72 in the two major producing regions. In South Brazil, where planting was late and area reduced by about 20 percent, the harvest is projected at 2.1 million bales, compared with 2.25 million last year. Barring heavy rains, yields should be good.

In the Northeast, where harvesting is nearing completion, the crop is estimated at 900,000 bales. The quality of the Northeast crop was reduced by rains during harvest.

Raw cotton consumption continues to rise, in support of Brazil's expanding textile and yarn exports.

In South Brazil, cotton producers are shifting to the north central areas of the region, where rains are not as damaging as in São Paulo or Paraná, and new, efficient farms are producing greater yields per acre. Cotton acreage in the latter States may be down as much as 25 percent. Farmers there can get a better return on soybeans and sorghum than production of cotton brings.

SUGAR AND TROPICAL PRODUCTS

Indian Jute Crop Smaller Than Expected

India's total jute crop for 1972-73, including kenaf, is now estimated at 1,025,700 metric tons, about 16 percent less than previously estimated, according to trade sources. This decline could serve to increase the import requirements of India's jute spinning industry, thus putting upward pressure on fiber prices at a time when jute faces strong competition from manmade substitutes.

Ivory Coast To Produce Sugar

The Ivory Coast is to begin producing sugar in 1973-74, and 19,000 metric tons of sugar are expected from the first planting of 4,700 acres of sugarcane. The goal is for 60,000 tons of sugar during 1975-76.

At the present time, the Ivory Coast imports practically all of its sugar. These imports amounted to 57,400 tons in 1971. Projected consumption increases by 1975-76 will account for future production with little excess for export.

The Ivory Coast has obtained financing of $63.5 million for this project, which includes construction of a sugarmill and refinery as well as installation of an irrigation system. The new sugar project will be developed near Ferkessédougou, 310 miles north of Abidjan, capitol of the Ivory Coast.

LIVESTOCK AND MEAT PRODUCTS

USSR Buys Dutch Breeding Cattle

The Soviet Union will import 1,000 head of Dutch breeding cattle in 1973, according to an announcement by Soviet Minister of Agriculture V. Matskevich during a recent visit to the Netherlands.

The Minister noted that Soviet cattle stock had been reinforced by regular imports from Holland during the past two centuries, and the latest purchase is believed to be no more than a normal annual breeding cattle sale to the USSR.

U.S. Feeder Steers to Japan

The first shipment of U.S. feeder cattle to Japan was made on Thanksgiving Day, November 23, 1972, by an Amarillo, Texas firm. It consisted of 151 head of Hereford, Angus, Hereford-Angus crossbreds, and one Charolais crossbred steer.

The purchase was made by ZEN-NOH National Federation of Agricultural Cooperative Associations in Japan, which maintains a grain-buying office in Amarillo. When the shipment landed in Fukuoka, Japan, all cattle were in excellent condition. A second shipment of 155 head of choice-quality Angus calves was assembled in the Colorado area and air-shipped from Denver on December 20, 1972.

These are part of Japan's new feeder cattle quota of 5,000 head, a portion of which will be U.S. cattle.

First U.S. Holsteins Sold to France

The first planeload of U.S. Holstein cattle (80 head) to France was shipped out of Burlington, Vermont, on December 15, 1972. It is expected that an additional shipment will originate in the Midwest and ship out of Illinois at a later date.

The Vermont shipment included cattle from Vermont, Massachusetts, New York, and New Hampshire.

FRUITS, NUTS, AND VEGETABLES

West German Import Tender For Juice Concentrates

West Germany has announced a tender permitting imports of apple and pear juice concentrates, including respective mixtures, from a large number of countries including the United States. Applications for import licenses will be accepted from now on until the value limit is reached, but not later than June 20, 1973. The import licenses issued will be valid until June 30, 1973.

The establishment of levies is possible. The Foreign Trade Agency reserves the right to invalidate the licenses issued under this tender in case the European Community's Council of Ministers or the EC Commission makes the product subject to an EC licensing system or protective measures in accordance with EC Regulation 1427/71 (providing for action under Escape Clause).

GRAINS, FEEDS, PULSES, AND SEEDS

Grain Exports and Transportation Trends: Week Ending January 5

Weekly export inspections of wheat, feedgrains, and soybeans totaled 1.24 million metric tons for the week ending January 5—a slight gain from the week before but 19 percent below the December weekly average.

Inland transportation remained at a low level during the week as rail traffic was slowed by the New Year's holiday. Railcar loadings of grain totaled 27,267 cars, up slightly from the week before. Barge shipments of grain totaled 357,000 metric tons, up 16 percent from last week.

GRAIN EXPORT AND TRANSPORTATION TRENDS: WEEK ENDING JANUARY 5

Item	Week ending Jan. 5	Previous week	Weekly average, December	Weekly average, first quarter
	1,000 metric tons	*1,000 metric tons*	*1,000 metric tons*	*1,000 metric tons*
Weekly inspections for export:				
Wheat	640	494	572	414
Feedgrains	453	520	637	626
Soybeans	147	202	333	133
Total	1,240	1,216	1,542	1,173
Inland transportation:				
Barge shipments of grain	357	307	429	515
	Number	*Number*	*Number*	*Number*
Railcar loadings of grain	27,267	26,874	31,308	28,566

Polish Winter Grain Condition

Polish winter grains reportedly are in satisfactory condition, and soil moisture is adequate for spring growth. Sowing of winter grains was 2 to 3 weeks late in 1972, but this was offset by favorable late-season weather. Currently, however, because of a lack of snow cover and continued above-normal temperatures, the crop is believed to be somewhat vulnerable to winterkill.

World Wheat and Rye Crops Improved

World wheat production in 1972 is estimated at 304 million metric tons, 6 percent below the 1971 record level, but 1 percent above the estimate published in the September issue of *World Agricultural Production and Trade*. The decline from 1971 resulted chiefly from a drop of nearly 20 million tons in the USSR. Since the September report, estimates are lower in Brazil, China, and Australia but higher in Canada, Argentina, France, India, and Turkey. Despite a smaller crop in Yugoslavia, 1972 production in Eastern Europe was above the 1971 level of output.

World rye production is estimated at 26.3 million tons, down 10 percent from that of 1971, and up 3 percent from the September estimate. The main decline from last year was in the USSR and the increase since the September report was chiefly in Eastern Europe.

Detailed tables will appear in the January issue of *World Agricultural Production and Trade*.

Rotterdam Grain Prices and Levies

Current offer prices for imported grain at Rotterdam, the Netherlands, compared with a week earlier and a year ago:

Item	Jan. 17	Change from previous week	A year ago
	Dol. per bu.	*Cents per bu.*	*Dol. per bu.*
Wheat:			
Canadian No. 1 CWRS-14	3.27	−8	1.99
USSR SKS-14	(1)	(1)	1.87
Australian FAQ [2]	3.06	+1	1.65
U.S. No. 2 Dark Northern Spring:			
14 percent	3.12	+2	1.92
15 percent	3.14	−2	1.99
U.S. No. 2 Hard Winter:			
13.5 percent	2.97	−4	1.79
No. 3 Hard Amber Durum	3.06	+3	1.82
Argentine	(1)	(1)	(1)
U.S. No. 2 Soft Red Winter	(1)	(1)	(1)
Feedgrains:			
U.S. No. 3 Yellow corn	2.21	+8	1.45
Argentine Plate corn	2.40	+4	1.59
U.S. No. 2 sorghum	2.27	−8	1.51
Argentine-Granifero sorghum	2.26	−9	1.54
U.S. No. 3 Feed barley	2.03	+8	1.26
Soybeans:			
U.S. No. 2 Yellow	5.57	+40	3.35
EC import levies: [3]			
Wheat [4]	[5] .78	−5	1.60
Corn [6]	[5] .63	−5	1.07
Sorghum [6]	[5] .55	0	.99

[1] Not quoted. [2] Basis c.i.f. Tilbury, England. [3] The grain levies in the new member countries are reduced by the following amounts through July 31, 1973: Wheat—United Kingdom, $1.31; Denmark, $0.29; Ireland, $0.23. Corn—United Kingdom, $1.02; Ireland, $0.63. Sorghum—United Kingdom, $1.03; Ireland, $0.68. [4] Durum has a separate levy. [5] Effective October 14, 1971, validity of licenses with levies fixed in advance is a maximum of 30 days. [6] Italian levies are 21 cents a bu. lower than those of other EC countries.

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Spain To Import More U.S. Holsteins and Expand Use for Beef

With shortages of beef, as well as milk, plaguing its economy, Spain is in the market again for U.S. Holsteins. Indications are that 500 additional head will move to that country within the next few weeks, bringing to over 1,500 the number imported since November 1971. These imports have included one of the largest Holstein shipments ever recorded—550 head in August (see *Foreign Agriculture*, Nov. 13, 1972).

The latest shipment of Holsteins to Spain—scheduled for the last of January—will move to the same cooperative in southern Spain, La Merced, that made the earlier 550-head import.

Following its large import of U.S. Holsteins over the last 2 years, Spain has found that these cattle not only have high milk yields, but their young male calves are also desirable for veal and baby beef production—a development that is likely to buoy future demand for U.S. cattle.

As a result, indications are that the coming year should be an exceptionally good one for U.S. sales of Holsteins to Spain. It will be necessary, though, that the United States capitalize on Spain's subsidy arrangement, which covers up to 30 percent of the cost of imported bred heifers, and on Spain's consent to import unregistered animals. These measures have been applicable since August 5, 1972, and will most probably be extended to cover the immediate future.

Another action that will help expedite and streamline cattle sales to Spain is the impending establishment of bilingual cattle health certificates, covering breeder and slaughter animals, acceptable to both the United States and the Spanish authorities. This type of document has for some time been in effect between at least one leading European cattle exporting country and Spain.

Spain's strong interest in importing U.S. cattle reflects its persistent inability to produce enough meat, with resulting shortages. As of the end of August 1972, for instance, domestic red meat was extremely scarce owing to an imbalance between available supplies and the demand from tourists visiting seaside resorts during July and August. As a result, orders from the meat-processing industry had to be met exclusively from stocks of imported meat.

Portugal Ups U.S. Feed Imports *(Continued from page 12)*

The absence of Brazilian soybean imports by Portugal in 1971 was partly made up by increased taking of Brazilian soybean meal—up 75 percent over 1969-70 imports to nearly 30,000 tons valued at $3.2 million, or 84 percent of the total value of soybean meal imports. Meanwhile, Portugal's imports of U.S. soybean meal dropped from 16,660 tons in 1969 to 3,361 tons, valued at $400,000 in 1971.

Brazilian competition in the Portuguese soybean and soybean meal market will probably increase because of close traditional ties. However, the Portuguese demand for soybeans and soybean meal is increasing rapidly, so there appears to be room for expansion in the Portuguese market for both Brazil and the United States.

Portugal is expected to import increasing quantities of inedible tallow for the mixed feed industry. The United States has been by far the major supplier of this market and can be expected to maintain its strong position.